REMARKS

In the Office Action mailed March 20, 2007, the Examiner took the following action: (1) objected to the drawings due to informalities; (2) objected to the specification due to informalities; (3) rejected claims 1-26 under 35 USC §102(e) as being anticipated by Vanhoof et al. (US 6,212,566); and (4) rejected claims 1, 13, and 19 under 35 U.S.C. 103(a) as being unpatentable over Cantle et al. ("A Foundation Architecture For Elevating DSP in FPGAs", IDS document, Cite No. 1, published in 1999). Applicants respectfully request reconsideration of the application in view of the foregoing amendments and the following remarks.

I.   *Objections to the Drawings*

The Office Action objected to the drawings due to informalities. Specifically, on page 2, the Office Action asserted: "In figure 1, out port "24" should be --26--". As illustrated in figure 1 and described on page 2, lines 13 - 16, the "mathematical de-converter 24 receives a FFT output . . . and de-converts the FFT output into real and imaginary components, and outputs these components via real and imaginary output ports 26, 28, respectively, to a display device". Reference number 24 in Figure 1 represents the mathematical de-converter. Reference numbers 26 and 28 represent the real and imaginary output parts. Accordingly, the use of Figure 1 reference numbers in the specification is proper. Therefore, applicant respectfully requests reconsideration and withdrawal of the objections to the drawings.

II.   *Objections to the Specification*

The Examiner objected to the specification due to informalities. Specifically, the Examiner noted that the acronyms CPU, FPGA, PCI, HDL, VHDL, FIFO, XST, and BIT should be spelled out at the first appearance in the specification. Applicants have amended the specifications to correct these informalities noted by the Examiner.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the objections to the specifications.

III. Rejections of claims 1-26 under 35 USC § 102(e) and 35 USC § 103(a)

As amended, Claims 1 and 13 recite in part:

> "A method of performing a numerical simulation, comprising . . . routing a first portion of the received input data to the processor; routing a second portion of the received input data to the programmable device . . ."

As amended, Claim 19 recites in part:

> "An apparatus for performing a numerical simulation, comprising . . . a programmable module which routs a first portion of the received input data to the processor and routs a second portion of the received input data to the programmable device . . ."

Vanhoof fails to disclose, teach, or fairly suggest the method or apparatus recited in claims 1, 13, and 19. Specifically, Vanhoof fails to teach or fairly suggest a method or apparatus that routs a "first portion of the received input data to the processor" and routs a "second portion of the received input data to the programmable device." For the foregoing reasons, claims 1, 13, and 19 are allowable over Vanhoof. Claims 2-12, 14-18, and 20-26 depend from claims 1, 13, and 19 respectively and are thus allowable over the cited references at least due to their dependencies on claims 1, 13, and 19.

IV. New Claims

Applicants have added new claims 27-30 to recite additional features of the disclosed embodiment. These claims depend either directly or indirectly on claims 1 or 19.

Claims 27 and 29 recite in part:

> "routing a second portion of the received input data to the programmable device comprises *selecting the most time consuming*

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> portion *of the numerical simulation to be routed* to the
> programmable device."

(emphasis added)

As added, claims 28 and 30 recite in part:

> "selecting the most time consuming portion of the numerical
> simulation comprises selecting a portion of the numerical
> simulation that includes at least one logical operation."

(emphasis added)

Vanhoof fails to teach or fairly suggest a method or apparatus in which "the most time consuming portion of the numerical simulation" is selected to be "routed to the programmable device." In addition, Vanhoof fails to teach or fairly suggest a method or apparatus in which "at least one logical operation" is selected to be routed to the programmable device." Accordingly, Applicants request consideration and allowance of new claims 27-30.

CONCLUSION

Applicants respectfully submit pending claims 1-7, 9, 12-21, 24, 25, and 27-30 are now in condition for allowance. If there are any remaining matters that may be handled by telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Respectfully Submitted,

Dated: July 18, 2007

By: _____

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